

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing Of Claims:

Please amend the claims as follows:

1. (Currently Amended) A fiber-to-the-home (FTTH) system for transmitting and receiving IP signals, the FTTH system including a headend facility in communication with a plurality of subscriber premises, each subscriber premises comprising:

an optical network terminal (ONT) for receiving downstream and upstream IP signals and for routing the IP signals to a coupled device or the FTTH system;

a receiving device for receiving downstream IP signals from the optical network terminal and for providing upstream IP signals to the optical network terminal, the receiving device comprising:

an Ethernet switch for routing downstream IP signals; and

a modulator for receiving downstream IP video and audio signals from the Ethernet switch, the modulator for modulating the IP video and audio signals to provide RF signals; ~~and~~

at least one digital home communications terminal (DHCT) for receiving the RF signals from the modulator; and

the FTTH system further comprising a reverse path, comprising:

the at least one DHCT for transmitting reverse RF signals, the reverse RF signals including header information and payload data;

the receiving device for receiving the reverse RF signals, demodulating the reverse RF signals, and converting the demodulated signals to Ethernet signals;

the ONT for converting the Ethernet signals to optical signals, and for transmitting the optical signals to the headend facility via optical fiber; and

a downstream modulator located in the headend facility for receiving signals corresponding to the optical signals and for sending the forward signals downstream to the at least one DHCT via the ONT, the downstream modulator having an identification number that is inserted into the forward signals,

wherein the at least one DHCT inserts the received modulator identification number in the reverse header information, and wherein the receiving device converts the modulator identification number into an Internet Protocol address indicative of the modulator identification number.

2. (Previously Presented) The FTTH system of claim 1, wherein the receiving device for providing IP data signals to a computer via a computer address.
3. (Previously Presented) The FTTH system of claim 1, wherein the optical network terminal for providing IP telephone signals to a coupled telephone.
4. (Canceled)

5. (Currently Amended) The FTTH system of claim [[4]] 1, the receiving device further comprising:

an upstream demodulator coupled to a diplex filter for demodulating the reverse RF signals;

a microprocessor for converting the demodulated signals into the Ethernet signals and for providing the Ethernet signals to the switch; and

the switch for receiving the Ethernet signals and any additional signals from a second source, the switch for combining the signals and for providing a combined signal to the ONT.

6. (Previously Presented) The FTTH system of claim 5, wherein the receiving device converts the identification number into the Internet Protocol number via the microprocessor.

7.-11. (Cancelled)

12. (Previously Presented) The FTTH system of claim 1, wherein the receiving device is a single wire return device (SWRD) such that a single wire is provided between the modulator and the at least one DHCT.

13. (Currently Amended) The FTTH system of claim [[4]] 1, wherein the modulator modulates the IP video and audio signals with quadrature amplitude modulation (QAM).

14. (Currently Amended) A fiber-to-the-home (FTTH) system for transmitting and receiving IP signals, the FTTH system including a headend facility in communication with a plurality of subscriber premises, each subscriber premises comprising:

an optical network terminal (ONT) configured to receive downstream and upstream IP signals and route the IP signals to a coupled device or the FTTH system;

a receiving device configured to receive downstream IP signals from the ONT, provide RF signals, and provide upstream IP signals to the ONT, the receiving device comprising an Ethernet switch configured to route downstream IP signals; and

at least one digital home communications terminal (DHCT) configured to receive the RF signals from the receiving device, the at least one DHCT configured to transmit reverse RF signals, wherein the reverse RF signals include header information and payload data;

the receiving device is further configured to receive the reverse RF signals, demodulating the reverse RF signals, and convert the demodulated signals to Ethernet signals;

the ONT is further configured to convert the Ethernet signals to optical signals, and transmit the optical signals to a headend optical network located in the headend facility via optical fiber; and

wherein the at least one DHCT inserts a received modulator identification number in the reverse header information, and wherein the receiving device converts the modulator identification number into an Internet Protocol address indicative of the modulator identification number; and

the FFTH system further comprising a downstream modulator located in the headend facility configured to receive signals corresponding to the optical signals from the headend optical network and to send forward signals corresponding to the IP downstream signals, the downstream modulator including the modulator identification number which is inserted into the forward signals.

15. (Previously Presented) The FFTH system of claim 14, wherein the receiving device is a single wire return device (SWRD) such that a single wire is provided between the receiving device and the at least one DHCT.

16. (Cancelled)